

IAP16 Rec'd PCT/PTO 21 SEP 2006

10/593717

AMENDMENT  
(Under Art. 11)

To : The Commissioner of the Patent Office

1. Identification of the International Application

PCT/JP2005/005880

2. Applicant

Name VICTOR COMPANY OF JAPAN, LIMITED  
Address 12, Moriya-cho 3-chome, Kanagawa-ku,  
Yokohama-shi, Kanagawa 221-8528 Japan  
Country of nationality Japan  
Country of residence Japan

3. Agent

Name (No.9306) Patent Attorney NIHEI Masayuki  
Address Tomin Shinjuku bldg. 2F, 8-8,  
Shinjuku 2-chome, Shinjuku-ku, Tokyo  
160-0022 JAPAN

4. Subject of Amendment

Specification and Claims

## 5. Contents of The Amendment

(1) In the specification, page 12, paragraph [0020], "Specifically, to achieve the above objective, according to the present invention, provided is an electronic service manual generation method, for permitting a computer to generate an electronic service manual that includes document information and drawing information related to a predetermined product that includes an electric circuit, or an electronic circuit, that employs parts as components, comprising:

an original data acquisition step of the computer obtaining original data serving as contents of the electronic service manual;

a structure definition acquisition step of the computer obtaining structure definition information, in which a structure definition for the electronic service manual is described and which is stored at a location the computer is capable of referencing; and

a structured data generation step of, based on the structure definition information obtained at the structure definition acquisition step, the computer employing the original data obtained at the original data acquisition step to generate structured data that is constituent data of the electronic service manual and that conforms to the structure definition." has been amended to "Specifically, to achieve

the above objective, according to the present invention, provided is an electronic service manual generation method, for permitting a computer to generate an electronic service manual that includes document information and drawing information related to a predetermined product that includes an electric circuit, or an electronic circuit, that employs parts as components, comprising:

an original data acquisition step of the computer obtaining original data serving as contents of the electronic service manual;

a structure definition acquisition step of the computer obtaining structure definition information, in which a structure definition for the electronic service manual is described and which is stored at a location the computer is capable of referencing; and

a structured data generation step of, based on the structure definition information obtained at the structure definition acquisition step, the computer employing the original data obtained at the original data acquisition step to generate structured data that is constituent data of the electronic service manual and that conforms to the structure definition,

whereby, when, at the original data acquisition step, data that serves as main text for the electronic service manual is obtained as the original data at the structure

definition acquisition step, main text structure definition information in which a structure definition related to the main text is described is obtained as the structure definition information,

whereby, when, at the original data acquisition step, drawing data in which parts used for the predetermined product are illustrated are obtained as the original data, at the structure definition acquisition step, drawing structure definition information, in which a structure definition related to the drawing is described and which includes a structure definition to structure, as one group, graphics primitive data and attribute data indicating the graphics primitive data, is obtained as the structure definition information,

whereby, when, at the original data acquisition step, parts table data in which a list of the parts used for the predetermined product is described are obtained as the original data, at the structure definition acquisition step, parts table structure definition information, in which a structure definition related to the parts table is described, is obtained as the structure definition information, and

whereby, when, at the original data acquisition step, voltage value table data, in which a list of voltage values for the electric circuit or the electronic circuit used in the predetermined product is described, are obtained as the

original data, at the structure definition acquisition step, voltage value table structure definition information, in which a structure definition related to the voltage value table is described, is obtained as the structure definition information. ".

(2) In the specification, page 13, paragraph [0021] has been deleted.

(3) In the specification, page 14, paragraph [0022], "Further, according to the present invention, in addition to the above invention, an electronic service manual generation method is provided

whereby, when, at the original data acquisition step, data that serves as main text for the electronic service manual is obtained as the original data at the structure definition acquisition step, main text structure definition information in which a structure definition related to the main text is described is obtained as the structure definition information;

whereby, when, at the original data acquisition step, drawing data in which parts used for the predetermined product are illustrated are obtained as the original data, at the structure definition acquisition step, drawing structure definition information in which a structure definition related to the drawing is described is obtained as the structure definition information;

whereby, when, at the original data acquisition step, parts table data in which a list of the parts used for the predetermined product is described are obtained as the original data, at the structure definition acquisition step, parts table structure definition information, in which a structure definition related to the parts table is described, is obtained as the structure definition information;

whereby, when, at the original data acquisition step, IC function table data in which a list of functions of ICs employed for the predetermined product is described are obtained as the original data, at the structure definition acquisition step, IC function table structure definition information, in which a structure definition related to the IC function table is described, is obtained as the structure definition information; and

whereby, when, at the original data acquisition step, voltage value table data, in which a list of voltage values for the electric circuit or the electronic circuit used in the predetermined product is described, are obtained as the original data, at the structure definition acquisition step, voltage value table structure definition information, in which a structure definition related to the voltage value table is described, is obtained as the structure definition information." has been amended to "Further, according to the present invention, in addition to the above invention, an

electronic service manual generation method is provided

whereby, when, at the original data acquisition step, IC function table data in which a list of functions of ICs employed for the predetermined product is described are obtained as the original data, at the structure definition acquisition step, IC function table structure definition information, in which a structure definition related to the IC function table is described, is obtained as the structure definition information."

(4) In the specification, page 18, paragraph [0026], "Moreover, to achieve the above objective, according to the present invention, provided is an additional data generation method, for a computer that displays, on a display unit, an electronic service manual that includes document information and drawing information related to a predetermined product that includes an electric circuit or an electronic circuit that employs parts as components, whereby, when a user who browses the electronic service manual displayed on the display unit enters, into the computer, additional information related to the electronic service manual, the computer generates additional data based on the additional information, comprising:

a structure definition acquisition step of the computer obtaining structure definition information, in which a structure definition related to the additional information

entered by the user is described and which is stored at a location the computer is capable of referencing; and

a structured data generation step of, based on the structure definition information obtained at the structure definition acquisition step, the computer employing the additional information to generate structured data that conforms to the structure definition." has been amended to "Moreover, to achieve the above objective, according to the present invention, provided is an additional data generation method, for a computer that displays, on a display unit, an electronic service manual that includes document information and drawing information that is information for writing and drawings related to a predetermined product that includes an electric circuit or an electronic circuit that employs parts as components, whereby, when a user who browses the electronic service manual displayed on the display unit enters, into the computer, additional information related to the electronic service manual, the computer generates additional data based on the additional information, comprising:

a structure definition acquisition step of the computer obtaining structure definition information, in which a structure definition related to the additional information entered by the user is described in order to structure the additional information, together with information that



designates the drawing correlated with the additional information, and which is stored at a location the computer is capable of referencing; and

a structured data generation step of, based on the structure definition information obtained at the structure definition acquisition step, the computer employing the additional information to generate structured data that conforms to the structure definition. ".

(5) In the specification, page 20, paragraph [0028], "Also, to achieve the above objective, according to the present invention, provided is an electronic service manual generation program, for permitting a computer to generate an electronic service manual that includes document information and drawing information related to a predetermined product that includes an electric circuit, or an electronic circuit, that employs parts as components, and for permitting the computer to execute:

an original data acquisition step of obtaining original data serving as contents of the electronic service manual;

a structure definition acquisition step of obtaining structure definition information, in which a structure definition for the electronic service manual is described and which is stored at a location the computer is capable of referencing; and

a structured data generation step of, based on the

structure definition information obtained at the structure definition acquisition step, employing the original data obtained at the original data acquisition step to generate structured data that is constituent data of the electronic service manual and that conforms to the structure definition." has been amended to "Also, to achieve the above objective, according to the present invention, provided is an electronic service manual generation program, for permitting a computer to generate an electronic service manual that includes document, information and drawing information related to a predetermined product that includes an electric circuit, or an electronic circuit, that employs parts as components, and for permitting the computer to execute:

- an original data acquisition step of obtaining original data serving as contents of the electronic service manual;

- a structure definition acquisition step of obtaining structure definition information, in which a structure definition for the electronic service manual is described and which is stored at a location the computer is capable of referencing; and

- a structured data generation step of, based on the structure definition information obtained at the structure definition acquisition step, employing the original data obtained at the original data acquisition step to generate

structured data that is constituent data of the electronic service manual and that conforms to the structure definition,

whereby, when, at the original data acquisition step, data that serves as main text for the electronic service manual is obtained as the original data at the structure definition acquisition step, main text structure definition information in which a structure definition related to the main text is described is obtained as the structure definition information,

whereby, when, at the original data acquisition step, drawing data in which parts used for the predetermined product are illustrated are obtained as the original data, at the structure definition acquisition step, drawing structure definition information in which a structure definition related to the drawing is described is obtained as the structure definition information,

whereby, when, at the original data acquisition step, parts table data in which a list of the parts used for the predetermined product is described are obtained as the original data, at the structure definition acquisition step, parts table structure definition information, in which a structure definition related to the parts table is described, is obtained as the structure definition information, and

whereby, when, at the original data acquisition step, voltage value table data, in which a list of voltage values

for the electric circuit or the electronic circuit used in the predetermined product is described, are obtained as the original data, at the structure definition acquisition step, voltage value table structure definition information, in which a structure definition related to the voltage value table is described, is obtained as the structure definition information.".

(6) In the specification, page 21, paragraph [0029] has been deleted.

(7) In the specification, page 22, paragraph [0030], "Further, according to the present invention, in addition to the above invention, an electronic service manual generation program is provided

whereby, when, at the original data acquisition step, data that serves as main text for the electronic service manual is obtained as the original data at the structure definition acquisition step, main text structure definition information in which a structure definition related to the main text is described is obtained as the structure definition information;

whereby, when, at the original data acquisition step, drawing data in which parts used for the predetermined product are illustrated are obtained as the original data, at the structure definition acquisition step, drawing structure definition information in which a structure

definition related to the drawing is described is obtained as the structure definition information;

whereby, when, at the original data acquisition step, parts table data in which a list of the parts used for the predetermined product is described are obtained as the original data, at the structure definition acquisition step, parts table structure definition information, in which a structure definition related to the parts table is described, is obtained as the structure definition information;

whereby, when, at the original data acquisition step, IC function table data in which a list of functions of ICs employed for the predetermined product is described are obtained as the original data, at the structure definition acquisition step, IC function table structure definition information, in which a structure definition related to the IC function table is described, is obtained as the structure definition information; and

whereby, when, at the original data acquisition step, voltage value table data, in which a list of voltage values for the electric circuit or the electronic circuit used in the predetermined product is described, are obtained as the original data, at the structure definition acquisition step, voltage value table structure definition information, in which a structure definition related to the voltage value table is described, is obtained as the structure definition

information." has been amended to "Further, according to the present invention, in addition to the above invention, an electronic service manual generation program is provided

whereby, when, at the original data acquisition step, IC function table data in which a list of functions of ICs employed for the predetermined product is described are obtained as the original data, at the structure definition acquisition step, IC function table structure definition information, in which a structure definition related to the IC function table is described, is obtained as the structure definition information. ".

(8) In the specification, page 26, paragraph [0034], "Moreover, to achieve the above objective, according to the present invention, provided is an additional data generation program, which can be executed by a computer that displays, on a display unit, an electronic service manual that includes document information and drawing information related to a predetermined product that includes an electric circuit or an electronic circuit that employs parts as components, which permits the computer to generate additional data based on additional information when a user who browses the electronic service manual displayed on the display unit enters, into the computer, the additional information related to the electronic service manual, and which permits the computer to execute:

a structure definition acquisition step of obtaining structure definition information, in which a structure definition related to the additional information entered by the user is described and which is stored at a location the computer is capable of referencing; and

a structured data generation step of, based on the structure definition information obtained at the structure definition acquisition step, employing the additional information to generate structured data that conforms to the structure definition." has been amended to "Moreover, to achieve the above objective, according to the present invention, provided is an additional data generation program, which can be executed by a computer that displays, on a display unit, an electronic service manual that includes document information and drawing information that is information for writing and drawings related to a predetermined product that includes an electric circuit or an electronic circuit that employs parts as components, which permits the computer to generate additional data based on additional information when a user who browses the electronic service manual displayed on the display unit enters, into the computer, the additional information related to the electronic service manual, and which permits the computer to execute:

a structure definition acquisition step of obtaining structure definition information, in which a structure

definition related to the additional information entered by the user is described in order to structure the additional information, together with information that designates the drawing correlated with the additional information, and which is stored at a location the computer is capable of referencing; and

a structured data generation step of, based on the structure definition information obtained at the structure definition acquisition step, employing the additional information to generate structured data that conforms to the structure definition. ".

(9) In the specification, page 28, paragraph [0036], "Also, to achieve the above objective, according to the present invention, provided is an electronic service manual generation apparatus, for generating an electronic service manual that includes document information and drawing information related to a predetermined product that includes an electric circuit, or an electronic circuit, that employs parts as components, comprising:

original data acquisition means, for obtaining original data serving as contents of the electronic service manual;

structure definition acquisition means, for obtaining structure definition information, in which a structure definition for the electronic service manual is described



and which is stored at a location that is capable of being referenced; and

structured data generation means for, based on the structure definition information obtained by the structure definition acquisition means, employing the original data obtained by the original data acquisition means to generate structured data that is constituent data of the electronic service manual and that conforms to the structure definition." has been amended to "Also, to achieve the above objective, according to the present invention, provided is an electronic service manual generation apparatus, for generating an electronic service manual that includes document information and drawing information related to a predetermined product that includes an electric circuit, or an electronic circuit, that employs parts as components, comprising:

original data acquisition means, for obtaining original data serving as contents of the electronic service manual;

structure definition acquisition means, for obtaining structure definition information, in which a structure definition for the electronic service manual is described and which is stored at a location that is capable of being referenced; and

structured data generation means for, based on the

structure definition information obtained by the structure definition acquisition means, employing the original data obtained by the original data acquisition means to generate structured data that is constituent data of the electronic service manual and that conforms to the structure definition,

wherein, when the original data acquisition means obtains, as the original data, data that serves as main text for the electronic service manual, the structure definition acquisition means obtains, as the structure definition information, main text structure definition information in which a structure definition related to the main text is described,

wherein, when the original data acquisition means obtains, as the original data, drawing data in which parts used for the predetermined product are illustrated, the structure definition acquisition means obtains, as the structure definition information, drawing structure definition information in which a structure definition related to the drawing is described,

wherein, when the original data acquisition means obtains, as the original data, parts table data in which a list of the parts used for the predetermined product is described, the structure definition acquisition means obtains, as the structure definition information, parts table structure definition information, in which a structure

definition related to the parts table is described, and

wherein, when the original data acquisition means obtains, as the original data, voltage value table data, in which a list of voltage values for the electric circuit or the electronic circuit used in the predetermined product is described, the structure definition acquisition means obtains, as the structure definition information, voltage value table structure definition information, in which a structure definition related to the voltage value table is described.”.

(10) In the specification, page 29, paragraph [0037] has been deleted.

(11) In the specification, page 31, paragraph [0038] “Further, according to the present invention, in addition to the above invention, an electronic service manual generation apparatus is provided

wherein, when the original data acquisition means obtains, as the original data, data that serves as main text for the electronic service manual, the structure definition acquisition means obtains, as the structure definition information, main text structure definition information in which a structure definition related to the main text is described;

wherein, when the original data acquisition means obtains, as the original data, drawing data in which parts

used for the predetermined product are illustrated, the structure definition acquisition means obtains, as the structure definition information, drawing structure definition information in which a structure definition related to the drawing is described;

wherein, when the original data acquisition means obtains, as the original data, parts table data in which a list of the parts used for the predetermined product is described, the structure definition acquisition means obtains, as the structure definition information, parts table structure definition information, in which a structure definition related to the parts table is described;

wherein, when the original data acquisition means obtains, as the original data, IC function table data in which a list of functions of ICs employed for the predetermined product is described, the structure definition acquisition means obtains, as the structure definition information, IC function table structure definition information, in which a structure definition related to the IC function table is described; and

wherein, when the original data acquisition means obtains, as the original data, voltage value table data, in which a list of voltage values for the electric circuit or the electronic circuit used in the predetermined product is described, the structure definition acquisition means

obtains, as the structure definition information, voltage value table structure definition information, in which a structure definition related to the voltage value table is described. " has been amended to "Further, according to the present invention, in addition to the above invention, an electronic service manual generation apparatus is provided

wherein, when the original data acquisition means obtains, as the original data, IC function table data in which a list of functions of ICs employed for the predetermined product is described, the structure definition acquisition means obtains, as the structure definition information, IC function table structure definition information, in which a structure definition related to the IC function table is described."

(12) In the specification, page 35, paragraph [0042], "Moreover, to achieve the above objective, according to the present invention, provided is an additional data generation apparatus, for displaying, on a display unit, an electronic service manual that includes document information and drawing information related to a predetermined product that includes an electric circuit or an electronic circuit that employs parts as components, and for generating additional data based on additional information when a user who browses the electronic service manual displayed on the display unit enters, into the computer, the additional information

related to the electronic service manual, comprising:

structure definition acquisition means, for obtaining structure definition information, in which a structure definition related to the additional information entered by the user is described and which is stored at a location that is capable of being referenced; and

structured data generation means for, based on the structure definition information obtained at the structure definition acquisition step, employing the additional information to generate structured data that conforms to the structure definition." has been amended to "Moreover, to achieve the above objective, according to the present invention, provided is an additional data generation apparatus, for displaying, on a display unit, an electronic service manual that includes document information and drawing information that is information for writing and drawings related to a predetermined product that includes an electric circuit or an electronic circuit that employs parts as components, and for generating additional data based on additional information when a user who browses the electronic service manual displayed on the display unit enters, into the computer, the additional information related to the electronic service manual, comprising:

structure definition acquisition means, for obtaining structure definition information, in which a structure

definition related to the additional information entered by the user is described in order to structure the additional information, together with information that designates the drawing correlated with the additional information, and which is stored at a location that is capable of being referenced; and

structured data generation means for, based on the structure definition information obtained at the structure definition acquisition step, employing the additional information to generate structured data that conforms to the structure definition."

(13) In the specification, page 36, paragraph [0044], "Also, to achieve the above objective, according to the present invention, a recording medium is provided on which recorded is an electronic service manual generation program, for permitting a computer to generate an electronic service manual that includes document information and drawing information related to a predetermined product that includes an electric circuit, or an electronic circuit, that employs parts as components, and for permitting the computer to execute:

an original data acquisition step of obtaining original data serving as contents of the electronic service manual;

a structure definition acquisition step of obtaining structure definition information, in which a structure

definition for the electronic service manual is described and which is stored at a location the computer is capable of referencing; and

a structured data generation step of, based on the structure definition information obtained at the structure definition acquisition step, employing the original data obtained at the original data acquisition step to generate structured data that is constituent data of the electronic service manual and that conforms to the structure definition. " has been amended to "Also, to achieve the above objective, according to the present invention, a recording medium is provided on which recorded is an electronic service manual generation program, for permitting a computer to generate an electronic service manual that includes document information and drawing information related to a predetermined product that includes an electric circuit, or an electronic circuit, that employs parts as components, and for permitting the computer to execute:

an original data acquisition step of obtaining original data serving as contents of the electronic service manual;

a structure definition acquisition step of obtaining structure definition information, in which a structure definition for the electronic service manual is described and which is stored at a location the computer is capable of referencing; and



a structured data generation step of, based on the structure definition information obtained at the structure definition acquisition step, employing the original data obtained at the original data acquisition step to generate structured data that is constituent data of the electronic service manual and that conforms to the structure definition,

whereby, when, at the original data acquisition step, data that serves as main text for the electronic service manual is obtained as the original data at the structure definition acquisition step, main text structure definition information in which a structure definition related to the main text is described is obtained as the structure definition information,

whereby, when, at the original data acquisition step, drawing data in which parts used for the predetermined product are illustrated are obtained as the original data, at the structure definition acquisition step, drawing structure definition information, in which a structure definition related to the drawing is described and which includes a structure definition to structure, as one group, graphics primitive data and attribute data indicating the graphics primitive data, is obtained as the structure definition information,

whereby, when, at the original data acquisition step, parts table data in which a list of the parts used for the

predetermined product is described are obtained as the original data, at the structure definition acquisition step, parts table structure definition information, in which a structure definition related to the parts table is described, is obtained as the structure definition information, and

whereby, when, at the original data acquisition step, voltage value table data, in which a list of voltage values for the electric circuit or the electronic circuit used in the predetermined product is described, are obtained as the original data, at the structure definition acquisition step, voltage value table structure definition information, in which a structure definition related to the voltage value table is described, is obtained as the structure definition information."

(14) In the specification, page 37, paragraph [0045] has been deleted.

(15) In the specification, page 39, paragraph [0046], "Further, according to the present invention, in addition to the above invention, a recording medium is provided on which recorded is an electronic service manual generation program

whereby, when, at the original data acquisition step, data that serves as main text for the electronic service manual is obtained as the original data at the structure definition acquisition step, main text structure definition

information in which a structure definition related to the main text is described is obtained as the structure definition information;

whereby, when, at the original data acquisition step, drawing data in which parts used for the predetermined product are illustrated are obtained as the original data, at the structure definition acquisition step, drawing structure definition information in which a structure definition related to the drawing is described is obtained as the structure definition information;

whereby, when, at the original data acquisition step, parts table data in which a list of the parts used for the predetermined product is described are obtained as the original data, at the structure definition acquisition step, parts table structure definition information, in which a structure definition related to the parts table is described, is obtained as the structure definition information;

whereby, when, at the original data acquisition step, IC function table data in which a list of functions of ICs employed for the predetermined product is described are obtained as the original data, at the structure definition acquisition step, IC function table structure definition information, in which a structure definition related to the IC function table is described, is obtained as the structure definition information; and

whereby, when, at the original data acquisition step, voltage value table data, in which a list of voltage values for the electric circuit or the electronic circuit used in the predetermined product is described, are obtained as the original data, at the structure definition acquisition step, voltage value table structure definition information, in which a structure definition related to the voltage value table is described, is obtained as the structure definition information." has been amended to "Further, according to the present invention, in addition to the above invention, a recording medium is provided on which recorded is an electronic service manual generation program

whereby, when, at the original data acquisition step, IC function table data in which a list of functions of ICs employed for the predetermined product is described are obtained as the original data, at the structure definition acquisition step, IC function table structure definition information, in which a structure definition related to the IC function table is described, is obtained as the structure definition information. ".

(16) In the specification, page 43, paragraph [0050], "Moreover, to achieve the above objective, according to the present invention, a recording medium is provided on which recorded is an additional data generation program, which can be executed by a computer that displays, on a display unit,

an electronic service manual that includes document information and drawing information related to a predetermined product that includes an electric circuit or an electronic circuit that employs parts as components, which permits the computer to generate additional data based on additional information when a user who browses the electronic service manual displayed on the display unit enters, into the computer, the additional information related to the electronic service manual, and which permits the computer to execute:

a structure definition acquisition step of obtaining structure definition information, in which a structure definition related to the additional information entered by the user is described and which is stored at a location the computer is capable of referencing; and

a structured data generation step of, based on the structure definition information obtained at the structure definition acquisition step, employing the additional information to generate structured data that conforms to the structure definition." has been amended to "Moreover, to achieve the above objective, according to the present invention, a recording medium is provided on which recorded is an additional data generation program, which can be executed by a computer that displays, on a display unit, an electronic service manual that includes document information

and drawing information that is information for writing and drawings related to a predetermined product that includes an electric circuit or an electronic circuit that employs parts as components, which permits the computer to generate additional data based on additional information when a user who browses the electronic service manual displayed on the display unit enters, into the computer, the additional information related to the electronic service manual, and which permits the computer to execute:

a structure definition acquisition step of obtaining structure definition information, in which a structure definition related to the additional information entered by the user is described in order to structure the additional information, together with information that designates the drawing correlated with the additional information, and which is stored at a location the computer is capable of referencing; and

a structured data generation step of, based on the structure definition information obtained at the structure definition acquisition step, employing the additional information to generate structured data that conforms to the structure definition."

(17) In the claims, pages 145 to 176 have been amended to attached pages 145 to 170 (The claims 1 to 32 have been replaced by amended claims 1 to 28).

6. List of Attachment

- (1) Pages 12 to 40 of the specification
- (2) Pages 145 to 171 of the claims

[0020]

Specifically, to achieve the above objective, according to the present invention, provided is an electronic service manual generation method, for  
5 permitting a computer to generate an electronic service manual that includes document information and drawing information related to a predetermined product that includes an electric circuit, or an electronic circuit, that employs parts as components, comprising:

10 an original data acquisition step of the computer obtaining original data serving as contents of the electronic service manual;

a structure definition acquisition step of the computer obtaining structure definition information, in  
15 which a structure definition for the electronic service manual is described and which is stored at a location the computer is capable of referencing; and

a structured data generation step of, based on the structure definition information obtained at the  
20 structure definition acquisition step, the computer employing the original data obtained at the original data acquisition step to generate structured data that is constituent data of the electronic service manual and that conforms to the structure definition,

25 whereby, when, at the original data acquisition



step, data that serves as main text for the electronic service manual is obtained as the original data at the structure definition acquisition step, main text structure definition information in which a structure definition related to the main text is described is  
5 obtained as the structure definition information,

whereby, when, at the original data acquisition step, drawing data in which parts used for the predetermined product are illustrated are obtained as the original data, at the structure definition acquisition  
10 step, drawing structure definition information, in which a structure definition related to the drawing is described and which includes a structure definition to structure, as one group, graphics primitive data and  
15 attribute data indicating the graphics primitive data, is obtained as the structure definition information,

whereby, when, at the original data acquisition step, parts table data in which a list of the parts used for the predetermined product is described are obtained  
20 as the original data, at the structure definition acquisition step, parts table structure definition information, in which a structure definition related to the parts table is described, is obtained as the structure definition information, and

25 whereby, when, at the original data acquisition

step, voltage value table data, in which a list of voltage values for the electric circuit or the electronic circuit used in the predetermined product is described, are obtained as the original data, at the structure definition acquisition step, voltage value table structure definition information, in which a structure definition related to the voltage value table is described, is obtained as the structure definition information.

10 [0021]

[0022]

Further, according to the present invention, in addition to the above invention, an electronic service manual generation method is provided

15 whereby, when, at the original data acquisition step, IC function table data in which a list of functions of ICs employed for the predetermined product is described are obtained as the original data, at the structure definition acquisition step, IC function table structure definition information, in which a structure definition related to the IC function table is described, is obtained as the structure definition information.

[0023]

25 Furthermore, according to the present invention,

in addition to the above invention, an electronic service manual generation method is provided

whereby, when document data is obtained as the original data at the original data acquisition step, at the structured data generation step, the structured data, in an XML format, is generated by using the document data; and

whereby, when drawing data is obtained as the original data at the original data acquisition step, at the structured data generation step, the structured data are generated in an SVG format or an SVGZ format by using the drawing data.

[0024]

Further, according to the present invention, in addition to the above invention, provided is an electronic service manual generation method comprising:

a parts-drawing correlation reference step, when at the original data acquisition step parts table data, in which a list of the parts used for the predetermined product is described, and parts drawing data that includes drawings related to the parts are obtained as the original data, of the computer comparing individual parts included in the list of the parts with the drawings wherein the individual parts are illustrated, and generating parts-drawing correlation information that

includes the comparison results; and

a parts-drawing correlation addition step of,  
based on the parts-drawings correlation information  
generated at the parts-drawings correlation reference  
5 step, the computer embedding, in the parts table data,  
information about the parts written in the parts table  
data and the drawings that correspond to the parts.

[0025]

Additionally, according to the present invention,  
10 in addition to the above invention, provided is an  
electronic service manual generation method comprising:

a parts-IC correlation reference step, when at  
the original data acquisition step parts table data, in  
which the list of the parts is written, and IC function  
15 table data, in which a list of functions of ICs employed  
for the predetermined product is written, are obtained as  
the original data, of the computer comparing individual  
parts included in the parts list with the functions of  
individual ICs in the list of the IC functions and  
20 generating parts-IC functions correlation information  
that includes the comparison results; and

a parts-IC correlation addition step, of, based  
on the parts-IC functions correlation information  
generated at the parts-IC correlation reference step, the  
25 computer embedding, in the parts table data, information

about the parts written in the parts table data and about the IC functions that correspond to the parts.

[0026]

Moreover, to achieve the above objective,  
5 according to the present invention, provided is an additional data generation method, for a computer that displays, on a display unit, an electronic service manual that includes document information and drawing information that is information for writing and drawings  
10 related to a predetermined product that includes an electric circuit or an electronic circuit that employs parts as components, whereby, when a user who browses the electronic service manual displayed on the display unit enters, into the computer, additional information related  
15 to the electronic service manual, the computer generates additional data based on the additional information, comprising:

a structure definition acquisition step of the computer obtaining structure definition information, in  
20 which a structure definition related to the additional information entered by the user is described in order to structure the additional information, together with information that designates the drawing correlated with the additional information, and which is stored at a  
25 location the computer is capable of referencing; and

a structured data generation step of, based on the structure definition information obtained at the structure definition acquisition step, the computer employing the additional information to generate  
5 structured data that conforms to the structure definition.

[0027]

Also, according to the present invention, in addition to the above invention, an additional data generation method is provided

10 whereby, when a comment by the user is entered into the computer the additional information, at the structure definition acquisition step, my-note structure definition information, in which a structure definition related to the comment is described, is obtained as the  
15 structure definition information; and

whereby, when display setup change information for a graphics primitive included in a drawing for the electronic service manual is entered into the computer as the additional information, at the structure definition  
20 acquisition step, my-drawing structure definition information, in which a structure definition related to the display setup change information is described, is obtained as the structure definition information.

[0028]

25 Also, to achieve the above objective, according

to the present invention, provided is an electronic service manual generation program, for permitting a computer to generate an electronic service manual that includes document information and drawing information  
5 related to a predetermined product that includes an electric circuit, or an electronic circuit, that employs parts as components, and for permitting the computer to execute:

an original data acquisition step of obtaining  
10 original data serving as contents of the electronic service manual;

a structure definition acquisition step of obtaining structure definition information, in which a structure definition for the electronic service manual is  
15 described and which is stored at a location the computer is capable of referencing; and

a structured data generation step of, based on the structure definition information obtained at the structure definition acquisition step, employing the  
20 original data obtained at the original data acquisition step to generate structured data that is constituent data of the electronic service manual and that conforms to the structure definition,

whereby, when, at the original data acquisition  
25 step, data that serves as main text for the electronic

service manual is obtained as the original data at the  
structure definition acquisition step, main text  
structure definition information in which a structure  
definition related to the main text is described is  
5 obtained as the structure definition information,

whereby, when, at the original data acquisition  
step, drawing data in which parts used for the  
predetermined product are illustrated are obtained as the  
original data, at the structure definition acquisition  
10 step, drawing structure definition information in which a  
structure definition related to the drawing is described  
is obtained as the structure definition information,

whereby, when, at the original data acquisition  
step, parts table data in which a list of the parts used  
15 for the predetermined product is described are obtained  
as the original data, at the structure definition  
acquisition step, parts table structure definition  
information, in which a structure definition related to  
the parts table is described, is obtained as the  
20 structure definition information, and

whereby, when, at the original data acquisition  
step, voltage value table data, in which a list of  
voltage values for the electric circuit or the electronic  
circuit used in the predetermined product is described,  
25 are obtained as the original data, at the structure



definition acquisition step, voltage value table  
structure definition information, in which a structure  
definition related to the voltage value table is  
described, is obtained as the structure definition  
5 information.

[0029]

[0030]

Further, according to the present invention, in  
10 addition to the above invention, an electronic service  
manual generation program is provided

whereby, when, at the original data acquisition  
step, IC function table data in which a list of functions  
of ICs employed for the predetermined product is  
15 described are obtained as the original data, at the  
structure definition acquisition step, IC function table  
structure definition information, in which a structure  
definition related to the IC function table is described,  
is obtained as the structure definition information.

20 [0031]

Furthermore, according to the present invention,  
in addition to the above invention, an electronic service  
manual generation program is provided

whereby, when document data is obtained as the  
25 original data at the original data acquisition step, at

the structured data generation step, the structured data, in an XML format, is generated by using the document data; and

whereby, when drawing data is obtained as the original data at the original data acquisition step, at the structured data generation step, the structured data are generated in an SVG format or an SVGZ format by using the drawing data.

[0032]

Further, according to the present invention, in addition to the above invention, provided is an electronic service manual generation program that permits the computer to execute:

a parts-drawing correlation reference step, when at the original data acquisition step parts table data, in which a list of the parts used for the predetermined product is described, and parts drawing data that includes drawings related to the parts are obtained as the original data, of comparing individual parts included in the list of the parts with the drawings wherein the individual parts are illustrated, and generating parts-drawing correlation information that includes the comparison results; and

a parts-drawing correlation addition step, based on the parts-drawings correlation information generated

at the parts-drawings correlation reference step, of embedding, in the parts table data, information about the parts written in the parts table data and the drawings that correspond to the parts.

5 [0033]

Additionally, according to the present invention, in addition to the above invention, provided is an electronic service manual generation program that permits the computer to execute:

10 a parts-IC correlation reference step, when at the original data acquisition step parts table data, in which the list of the parts is written, and IC function table data, in which a list of functions of ICs employed for the predetermined product is written, are obtained as  
15 the original data, of comparing individual parts included in the parts list with the functions of individual ICs in the list of the IC functions and generating parts-IC functions correlation information that includes the comparison results; and

20 a parts-IC correlation addition step, based on the parts-IC functions correlation information generated at the parts-IC correlation reference step, of embedding, in the parts table data, information about the parts written in the parts table data and about the IC  
25 functions that correspond to the parts.

[0034]

Moreover, to achieve the above objective, according to the present invention, provided is an additional data generation program, which can be executed  
5 by a computer that displays, on a display unit, an electronic service manual that includes document information and drawing information that is information for writing and drawings related to a predetermined product that includes an electric circuit or an  
10 electronic circuit that employs parts as components, which permits the computer to generate additional data based on additional information when a user who browses the electronic service manual displayed on the display unit enters, into the computer, the additional  
15 information related to the electronic service manual, and which permits the computer to execute:

a structure definition acquisition step of obtaining structure definition information, in which a structure definition related to the additional  
20 information entered by the user is described in order to structure the additional information, together with information that designates the drawing correlated with the additional information, and which is stored at a location the computer is capable of referencing; and  
25 a structured data generation step of, based on

the structure definition information obtained at the structure definition acquisition step, employing the additional information to generate structured data that conforms to the structure definition.

5 [0035]

Also, according to the present invention, in addition to the above invention, an additional data generation program is provided

whereby, when a comment by the user is entered  
10 into the computer the additional information, at the structure definition acquisition step, my-notes structure definition information, in which a structure definition related to the comment is described, is obtained as the structure definition information; and

15 whereby, when display setup change information for a graphics primitive included in a drawing for the electronic service manual is entered into the computer as the additional information, at the structure definition acquisition step, my-drawings structure definition  
20 information, in which a structure definition related to the display setup change information is described, is obtained as the structure definition information.

[0036]

Also, to achieve the above objective, according  
25 to the present invention, provided is an electronic

service manual generation apparatus, for generating an electronic service manual that includes document information and drawing information related to a predetermined product that includes an electric circuit, or an electronic circuit, that employs parts as components, comprising:

original data acquisition means, for obtaining original data serving as contents of the electronic service manual;

structure definition acquisition means, for obtaining structure definition information, in which a structure definition for the electronic service manual is described and which is stored at a location that is capable of being referenced; and

structured data generation means for, based on the structure definition information obtained by the structure definition acquisition means, employing the original data obtained by the original data acquisition means to generate structured data that is constituent data of the electronic service manual and that conforms to the structure definition,

wherein, when the original data acquisition means obtains, as the original data, data that serves as main text for the electronic service manual, the structure definition acquisition means obtains, as the

structure definition information, main text structure definition information in which a structure definition related to the main text is described,

wherein, when the original data acquisition  
5 means obtains, as the original data, drawing data in which parts used for the predetermined product are illustrated, the structure definition acquisition means obtains, as the structure definition information, drawing structure definition information in which a structure  
10 definition related to the drawing is described,

wherein, when the original data acquisition means obtains, as the original data, parts table data in which a list of the parts used for the predetermined product is described, the structure definition  
15 acquisition means obtains, as the structure definition information, parts table structure definition information, in which a structure definition related to the parts table is described, and

wherein, when the original data acquisition  
20 means obtains, as the original data, voltage value table data, in which a list of voltage values for the electric circuit or the electronic circuit used in the predetermined product is described, the structure definition acquisition means obtains, as the structure  
25 definition information, voltage value table structure

definition information, in which a structure definition related to the voltage value table is described.

[0037]

5 [0038]

Further, according to the present invention, in addition to the above invention, an electronic service manual generation apparatus is provided

wherein, when the original data acquisition  
10 means obtains, as the original data, IC function table data in which a list of functions of ICs employed for the predetermined product is described, the structure definition acquisition means obtains, as the structure definition information, IC function table structure  
15 definition information, in which a structure definition related to the IC function table is described.

[0039]

Furthermore, according to the present invention, in addition to the above invention, an electronic service  
20 manual generation apparatus is provided

wherein, when document data is obtained as the original data by the original data acquisition means, the structured data generation means generates the structured data, in an XML format, by using the document data; and

25 wherein, when drawing data is obtained as the



original data by the original data acquisition means, the structured data generation means generates the structured data, in an SVG format or an SVGZ format, by using the drawing data.

5 [0040]

Further, according to the present invention, in addition to the above invention, provided is an electronic service manual generation apparatus comprising:

10 parts-drawing correlation reference means for, when the original data acquisition means obtains, as the original data, parts table data, in which a list of the parts used for the predetermined product is described, and parts drawing data that includes drawings related to  
15 the parts, comparing individual parts included in the list of the parts with the drawings wherein the individual parts are illustrated, and for generating parts-drawing correlation information that includes the comparison results; and

20 parts-drawing correlation addition means for, based on the parts-drawings correlation information generated at the parts-drawings correlation reference step, embedding, in the parts table data, information about the parts written in the parts table data and the  
25 drawings that correspond to the parts.

[0041]

Additionally, according to the present invention,  
in addition to the above invention, provided is an  
electronic service manual generation apparatus

5 comprising:

parts-IC correlation reference means for, when  
the original data acquisition means obtains, as the  
original data, parts table data, in which the list of the  
parts is written, and IC function table data, in which a  
10 list of functions of ICs employed for the predetermined  
product is written, comparing individual parts included  
in the parts list with the functions of individual ICs in  
the list of the IC functions, and for generating parts-IC  
functions correlation information that includes the  
15 comparison results; and

parts-IC correlation addition means for, based  
on the parts-IC functions correlation information  
generated by the parts-IC correlation reference means,  
embedding, in the parts table data, information about the  
20 parts written in the parts table data and about the IC  
functions that correspond to the parts.

[0042]

Moreover, to achieve the above objective,  
according to the present invention, provided is an  
25 additional data generation apparatus, for displaying, on

a display unit, an electronic service manual that includes document information and drawing information that is information for writing and drawings related to a predetermined product that includes an electric circuit or an electronic circuit that employs parts as components, and for generating additional data based on additional information when a user who browses the electronic service manual displayed on the display unit enters, into the computer, the additional information related to the electronic service manual, comprising:

structure definition acquisition means, for obtaining structure definition information, in which a structure definition related to the additional information entered by the user is described in order to structure the additional information, together with information that designates the drawing correlated with the additional information, and which is stored at a location that is capable of being referenced; and

structured data generation means for, based on the structure definition information obtained at the structure definition acquisition step, employing the additional information to generate structured data that conforms to the structure definition.

[0043]

Also, according to the present invention, in

addition to the above invention, an additional data generation apparatus is provided

wherein, when a comment by the user is entered into the computer the additional information, the  
5 structure definition acquisition means obtains, as the structure definition information, my-notes structure definition information, in which a structure definition related to the comment is described; and

wherein, when display setup change information  
10 for a graphics primitive included in a drawing for the electronic service manual is entered into the computer as the additional information, the structure definition acquisition means obtains, as the structure definition information, my-drawings structure definition information,  
15 in which a structure definition related to the display setup change information is described.

[0044]

Also, to achieve the above objective, according to the present invention, a recording medium is provided  
20 on which recorded is an electronic service manual generation program, for permitting a computer to generate an electronic service manual that includes document information and drawing information related to a predetermined product that includes an electric circuit,  
25 or an electronic circuit, that employs parts as

components, and for permitting the computer to execute:

an original data acquisition step of obtaining original data serving as contents of the electronic service manual;

5 a structure definition acquisition step of obtaining structure definition information, in which a structure definition for the electronic service manual is described and which is stored at a location the computer is capable of referencing; and

10 a structured data generation step of, based on the structure definition information obtained at the structure definition acquisition step, employing the original data obtained at the original data acquisition step to generate structured data that is constituent data  
15 of the electronic service manual and that conforms to the structure definition,

whereby, when, at the original data acquisition step, data that serves as main text for the electronic service manual is obtained as the original data at the  
20 structure definition acquisition step, main text structure definition information in which a structure definition related to the main text is described is obtained as the structure definition information,

whereby, when, at the original data acquisition  
25 step, drawing data in which parts used for the

predetermined product are illustrated are obtained as the original data, at the structure definition acquisition step, drawing structure definition information, in which a structure definition related to the drawing is

5 described and which includes a structure definition to structure, as one group, graphics primitive data and attribute data indicating the graphics primitive data, is obtained as the structure definition information,

whereby, when, at the original data acquisition  
10 step, parts table data in which a list of the parts used for the predetermined product is described are obtained as the original data, at the structure definition acquisition step, parts table structure definition information, in which a structure definition related to  
15 the parts table is described, is obtained as the structure definition information, and

whereby, when, at the original data acquisition step, voltage value table data, in which a list of voltage values for the electric circuit or the electronic  
20 circuit used in the predetermined product is described, are obtained as the original data, at the structure definition acquisition step, voltage value table structure definition information, in which a structure definition related to the voltage value table is  
25 described, is obtained as the structure definition

information.

[0045]

[0046]

5           Further, according to the present invention, in addition to the above invention, a recording medium is provided on which recorded is an electronic service manual generation program

          whereby, when, at the original data acquisition  
10   step, IC function table data in which a list of functions of ICs employed for the predetermined product is described are obtained as the original data, at the structure definition acquisition step, IC function table structure definition information, in which a structure  
15   definition related to the IC function table is described, is obtained as the structure definition information.

[0047]

          Furthermore, according to the present invention, in addition to the above invention, a recording medium is  
20   provided on which recorded is an electronic service manual generation program

          whereby, when document data is obtained as the original data at the original data acquisition step, at the structured data generation step, the structured data,  
25   in an XML format, is generated by using the document

data; and

whereby, when drawing data is obtained as the original data at the original data acquisition step, at the structured data generation step, the structured data  
5 are generated in an SVG format or an SVGZ format by using the drawing data.

[0048]

Further, according to the present invention, in addition to the above invention, a recording medium is  
10 provided on which recorded is an electronic service manual generation program that permits the computer to execute:

a parts-drawing correlation reference step, when at the original data acquisition step parts table data,  
15 in which a list of the parts used for the predetermined product is described, and parts drawing data that includes drawings related to the parts are obtained as the original data, of comparing individual parts included in the list of the parts with the drawings wherein the  
20 individual parts are illustrated, and generating parts-drawing correlation information that includes the comparison results; and

a parts-drawing correlation addition step, based on the parts-drawings correlation information generated  
25 at the parts-drawings correlation reference step, of



embedding, in the parts table data, information about the parts written in the parts table data and the drawings that correspond to the parts.

[0049]

5           Additionally, according to the present invention, in addition to the above invention, a recording medium is provided on which recorded is an electronic service manual generation program that permits the computer to execute:

10           a parts-IC correlation reference step, when at the original data acquisition step parts table data, in which the list of the parts is written, and IC function table data, in which a list of functions of ICs employed for the predetermined product is written, are obtained as  
15           the original data, of comparing individual parts included in the parts list with the functions of individual ICs in the list of the IC functions and generating parts-IC functions correlation information that includes the comparison results; and

20           a parts-IC correlation addition step, based on the parts-IC functions correlation information generated at the parts-IC correlation reference step, of embedding, in the parts table data, information about the parts written in the parts table data and about the IC  
25           functions that correspond to the parts.

[0050]

Moreover, to achieve the above objective,  
according to the present invention, a recording medium is  
provided on which recorded is an additional data  
5 generation program, which can be executed by a computer  
that displays, on a display unit, an electronic service  
manual that includes document information and drawing  
information that is information for writing and drawings  
related to a predetermined product that includes an  
10 electric circuit or an electronic circuit that employs  
parts as components, which permits the computer to  
generate additional data based on additional information  
when a user who browses the electronic service manual  
displayed on the display unit enters, into the computer,  
15 the additional information related to the electronic  
service manual, and which permits the computer to  
execute:

a structure definition acquisition step of  
obtaining structure definition information, in which a  
20 structure definition related to the additional  
information entered by the user is described in order to  
structure the additional information, together with  
information that designates the drawing correlated with  
the additional information, and which is stored at a  
25 location the computer is capable of referencing; and

a structured data generation step of, based on the structure definition information obtained at the structure definition acquisition step, employing the additional information to generate structured data that  
5 conforms to the structure definition.

[0051]

Also, according to the present invention, in addition to the above invention, a recording medium is provided on which recorded is an additional data  
10 generation program

whereby, when a comment by the user is entered into the computer the additional information, at the structure definition acquisition step, my-notes structure definition information, in which a structure definition  
15 related to the comment is described, is obtained as the structure definition information; and

whereby, when display setup change information for a graphics primitive included in a drawing for the electronic service manual is entered into the computer as  
20 the additional information, at the structure definition acquisition step, my-drawings structure definition information, in which a structure definition related to the display setup change information is described, is obtained as the structure definition information.  
25 additional information, at the structure definition

acquisition step, my-drawings structure definition information, in which a structure definition related to the display setup change information is described, is obtained as the structure definition information.

## CLAIMS

1. (Amended) An electronic service manual generation method, for permitting a computer to generate  
5 an electronic service manual that includes document information and drawing information related to a predetermined product that includes an electric circuit, or an electronic circuit, that employs parts as components, comprising:

10 an original data acquisition step of the computer obtaining original data serving as contents of the electronic service manual;

a structure definition acquisition step of the computer obtaining structure definition information, in  
15 which a structure definition for the electronic service manual is described and which is stored at a location the computer is capable of referencing; and

a structured data generation step of, based on the structure definition information obtained at the  
20 structure definition acquisition step, the computer employing the original data obtained at the original data acquisition step to generate structured data that is constituent data of the electronic service manual and that conforms to the structure definition,

25 whereby, when, at the original data acquisition

step, data that serves as main text for the electronic service manual is obtained as the original data at the structure definition acquisition step, main text structure definition information in which a structure definition related to the main text is described is  
5 obtained as the structure definition information,

whereby, when, at the original data acquisition step, drawing data in which parts used for the predetermined product are illustrated are obtained as the original data, at the structure definition acquisition  
10 step, drawing structure definition information, in which a structure definition related to the drawing is described and which includes a structure definition to structure, as one group, graphics primitive data and  
15 attribute data indicating the graphics primitive data, is obtained as the structure definition information,

whereby, when, at the original data acquisition step, parts table data in which a list of the parts used for the predetermined product is described are obtained  
20 as the original data, at the structure definition acquisition step, parts table structure definition information, in which a structure definition related to the parts table is described, is obtained as the structure definition information, and

25 whereby, when, at the original data acquisition

step, voltage value table data, in which a list of voltage values for the electric circuit or the electronic circuit used in the predetermined product is described, are obtained as the original data, at the structure definition acquisition step, voltage value table structure definition information, in which a structure definition related to the voltage value table is described, is obtained as the structure definition information.

10

2. (Amended) The electronic service manual generation method according to claim 1,

whereby, when, at the original data acquisition step, IC function table data in which a list of functions of ICs employed for the predetermined product is described are obtained as the original data, at the structure definition acquisition step, IC function table structure definition information, in which a structure definition related to the IC function table is described, is obtained as the structure definition information.

15

20

3. (Amended) The electronic service manual generation method according to claim 1,

whereby, when document data is obtained as the original data at the original data acquisition step, at

25

the structured data generation step, the structured data, in an XML format, is generated by using the document data; and

5       whereby, when drawing data is obtained as the original data at the original data acquisition step, at the structured data generation step, the structured data are generated in an SVG format or an SVGZ format by using the drawing data.

10       4.       (Amended) The electronic service manual generation method according to claim 1, comprising:

15               a parts-drawing correlation reference step, when at the original data acquisition step parts table data, in which a list of the parts used for the predetermined product is described, and parts drawing data that includes drawings related to the parts are obtained as the original data, of the computer comparing individual parts included in the list of the parts with the drawings wherein the individual parts are illustrated, and  
20       generating parts-drawing correlation information that includes the comparison results; and

25               a parts-drawing correlation addition step of, based on the parts-drawings correlation information generated at the parts-drawings correlation reference step, the computer embedding, in the parts table data,



information about the parts written in the parts table data and the drawings that correspond to the parts.

5. (Amended) The electronic service manual

5 generation method according to claim 1, comprising:

a parts-IC correlation reference step, when at the original data acquisition step parts table data, in which the list of the parts is written, and IC function table data, in which a list of functions of ICs employed for the predetermined product is written, are obtained as the original data, of the computer comparing individual parts included in the parts list with the functions of individual ICs in the list of the IC functions and generating parts-IC functions correlation information that includes the comparison results; and

10

15

a parts-IC correlation addition step, of, based on the parts-IC functions correlation information generated at the parts-IC correlation reference step, the computer embedding, in the parts table data, information about the parts written in the parts table data and about the IC functions that correspond to the parts.

20

6. (Amended) An additional data generation method, for a computer that displays, on a display unit, an electronic service manual that includes document

25

information and drawing information that is information  
for writing and drawings related to a predetermined  
product that includes an electric circuit or an  
electronic circuit that employs parts as components,  
5 whereby, when a user who browses the electronic service  
manual displayed on the display unit enters, into the  
computer, additional information related to the  
electronic service manual, the computer generates  
additional data based on the additional information,  
10 comprising:

a structure definition acquisition step of the  
computer obtaining structure definition information, in  
which a structure definition related to the additional  
information entered by the user is described in order to  
15 structure the additional information, together with  
information that designates the drawing correlated with  
the additional information, and which is stored at a  
location the computer is capable of referencing; and

a structured data generation step of, based on  
20 the structure definition information obtained at the  
structure definition acquisition step, the computer  
employing the additional information to generate  
structured data that conforms to the structure definition.

25 7. (Amended) The additional data generation method

according to claim 6,

whereby, when a comment by the user is entered into the computer the additional information, at the structure definition acquisition step, my-note structure definition information, in which a structure definition  
5 related to the comment is described, is obtained as the structure definition information; and

whereby, when display setup change information for a graphics primitive included in a drawing for the  
10 electronic service manual is entered into the computer as the additional information, at the structure definition acquisition step, my-drawing structure definition information, in which a structure definition related to the display setup change information is described, is  
15 obtained as the structure definition information.

8. (Amended) An electronic service manual generation program, for permitting a computer to generate an electronic service manual that includes document  
20 information and drawing information related to a predetermined product that includes an electric circuit, or an electronic circuit, that employs parts as components, and for permitting the computer to execute:  
an original data acquisition step of obtaining  
25 original data serving as contents of the electronic

service manual;

a structure definition acquisition step of obtaining structure definition information, in which a structure definition for the electronic service manual is described and which is stored at a location the computer  
5 is capable of referencing; and

a structured data generation step of, based on the structure definition information obtained at the structure definition acquisition step, employing the  
10 original data obtained at the original data acquisition step to generate structured data that is constituent data of the electronic service manual and that conforms to the structure definition,

whereby, when, at the original data acquisition  
15 step, data that serves as main text for the electronic service manual is obtained as the original data at the structure definition acquisition step, main text structure definition information in which a structure definition related to the main text is described is  
20 obtained as the structure definition information,

whereby, when, at the original data acquisition step, drawing data in which parts used for the predetermined product are illustrated are obtained as the original data, at the structure definition acquisition  
25 step, drawing structure definition information in which a

structure definition related to the drawing is described  
is obtained as the structure definition information,

whereby, when, at the original data acquisition  
step, parts table data in which a list of the parts used  
5 for the predetermined product is described are obtained  
as the original data, at the structure definition  
acquisition step, parts table structure definition  
information, in which a structure definition related to  
the parts table is described, is obtained as the  
10 structure definition information, and

whereby, when, at the original data acquisition  
step, voltage value table data, in which a list of  
voltage values for the electric circuit or the electronic  
circuit used in the predetermined product is described,  
15 are obtained as the original data, at the structure  
definition acquisition step, voltage value table  
structure definition information, in which a structure  
definition related to the voltage value table is  
described, is obtained as the structure definition  
20 information.

9. (Amended) The electronic service manual  
generation program according to claim 8,

whereby, when, at the original data acquisition  
25 step, IC function table data in which a list of functions

of ICs employed for the predetermined product is described are obtained as the original data, at the structure definition acquisition step, IC function table structure definition information, in which a structure definition related to the IC function table is described, is obtained as the structure definition information.

10. (Amended) The electronic service manual generation program according to claim 8, whereby, when document data is obtained as the original data at the original data acquisition step, at the structured data generation step, the structured data, in an XML format, is generated by using the document data; and whereby, when drawing data is obtained as the original data at the original data acquisition step, at the structured data generation step, the structured data are generated in an SVG format or an SVGZ format by using the drawing data.

11. (Amended) The electronic service manual generation program according to claim 8 that permits the computer to execute:

a parts-drawing correlation reference step, when at the original data acquisition step parts table data,

in which a list of the parts used for the predetermined product is described, and parts drawing data that includes drawings related to the parts are obtained as the original data, of comparing individual parts included  
5 in the list of the parts with the drawings wherein the individual parts are illustrated, and generating parts-drawing correlation information that includes the comparison results; and

a parts-drawing correlation addition step, based  
10 on the parts-drawings correlation information generated at the parts-drawings correlation reference step, of embedding, in the parts table data, information about the parts written in the parts table data and the drawings that correspond to the parts.

15

12. (Amended) The electronic service manual generation program according to claim 8 that permits the computer to execute:

a parts-IC correlation reference step, when at  
20 the original data acquisition step parts table data, in which the list of the parts is written, and IC function table data, in which a list of functions of ICs employed for the predetermined product is written, are obtained as the original data, of comparing individual parts included  
25 in the parts list with the functions of individual ICs in

the list of the IC functions and generating parts-IC functions correlation information that includes the comparison results; and

5 a parts-IC correlation addition step, based on the parts-IC functions correlation information generated at the parts-IC correlation reference step, of embedding, in the parts table data, information about the parts written in the parts table data and about the IC functions that correspond to the parts.

10

13. (Amended) An additional data generation program, which can be executed by a computer that displays, on a display unit, an electronic service manual that includes document information and drawing information that is  
15 information for writing and drawings related to a predetermined product that includes an electric circuit or an electronic circuit that employs parts as components, which permits the computer to generate additional data based on additional information when a user who browses  
20 the electronic service manual displayed on the display unit enters, into the computer, the additional information related to the electronic service manual, and which permits the computer to execute:

a structure definition acquisition step of  
25 obtaining structure definition information, in which a



structure definition related to the additional information entered by the user is described in order to structure the additional information, together with information that designates the drawing correlated with the additional information, and which is stored at a location the computer is capable of referencing; and  
5 a structured data generation step of, based on the structure definition information obtained at the structure definition acquisition step, employing the additional information to generate structured data that  
10 conforms to the structure definition.

14. (Amended) The additional data generation program according to claim 13,  
15 whereby, when a comment by the user is entered into the computer the additional information, at the structure definition acquisition step, my-notes structure definition information, in which a structure definition related to the comment is described, is obtained as the  
20 structure definition information; and

whereby, when display setup change information for a graphics primitive included in a drawing for the electronic service manual is entered into the computer as the additional information, at the structure definition  
25 acquisition step, my-drawings structure definition

information, in which a structure definition related to the display setup change information is described, is obtained as the structure definition information.

- 5 15. (Amended) An electronic service manual generation apparatus, for generating an electronic service manual that includes document information and drawing information related to a predetermined product that includes an electric circuit, or an electronic
- 10 circuit, that employs parts as components, comprising:
- original data acquisition means, for obtaining original data serving as contents of the electronic service manual;
- structure definition acquisition means, for
- 15 obtaining structure definition information, in which a structure definition for the electronic service manual is described and which is stored at a location that is capable of being referenced; and
- structured data generation means for, based on
- 20 the structure definition information obtained by the structure definition acquisition means, employing the original data obtained by the original data acquisition means to generate structured data that is constituent data of the electronic service manual and that conforms
- 25 to the structure definition,

wherein, when the original data acquisition means obtains, as the original data, data that serves as main text for the electronic service manual, the structure definition acquisition means obtains, as the structure definition information, main text structure definition information in which a structure definition related to the main text is described,

wherein, when the original data acquisition means obtains, as the original data, drawing data in which parts used for the predetermined product are illustrated, the structure definition acquisition means obtains, as the structure definition information, drawing structure definition information in which a structure definition related to the drawing is described,

wherein, when the original data acquisition means obtains, as the original data, parts table data in which a list of the parts used for the predetermined product is described, the structure definition acquisition means obtains, as the structure definition information, parts table structure definition information, in which a structure definition related to the parts table is described, and

wherein, when the original data acquisition means obtains, as the original data, voltage value table data, in which a list of voltage values for the electric

circuit or the electronic circuit used in the predetermined product is described, the structure definition acquisition means obtains, as the structure definition information, voltage value table structure definition information, in which a structure definition  
5 related to the voltage value table is described.

16. (Amended) The electronic service manual generation apparatus according to claim 15,  
10 wherein, when the original data acquisition means obtains, as the original data, IC function table data in which a list of functions of ICs employed for the predetermined product is described, the structure definition acquisition means obtains, as the structure  
15 definition information, IC function table structure definition information, in which a structure definition related to the IC function table is described.

17. (Amended) The electronic service manual generation apparatus according to claim 15,  
20 wherein, when document data is obtained as the original data by the original data acquisition means, the structured data generation means generates the structured data, in an XML format, by using the document data; and  
25 wherein, when drawing data is obtained as the

original data by the original data acquisition means, the structured data generation means generates the structured data, in an SVG format or an SVGZ format, by using the drawing data.

5

18. (Amended) The electronic service manual generation apparatus according to claim 15, comprising:

parts-drawing correlation reference means for, when the original data acquisition means obtains, as the  
10 original data, parts table data, in which a list of the parts used for the predetermined product is described, and parts drawing data that includes drawings related to the parts, comparing individual parts included in the list of the parts with the drawings wherein the  
15 individual parts are illustrated, and for generating parts-drawing correlation information that includes the comparison results; and

parts-drawing correlation addition means for, based on the parts-drawings correlation information  
20 generated at the parts-drawings correlation reference step, embedding, in the parts table data, information about the parts written in the parts table data and the drawings that correspond to the parts.

25 19. (Amended) The electronic service manual

generation apparatus according to claim 15, comprising:

parts-IC correlation reference means for, when the original data acquisition means obtains, as the original data, parts table data, in which the list of the parts is written, and IC function table data, in which a list of functions of ICs employed for the predetermined product is written, comparing individual parts included in the parts list with the functions of individual ICs in the list of the IC functions, and for generating parts-IC functions correlation information that includes the comparison results; and

parts-IC correlation addition means for, based on the parts-IC functions correlation information generated by the parts-IC correlation reference means, embedding, in the parts table data, information about the parts written in the parts table data and about the IC functions that correspond to the parts.

20. (Amended) An additional data generation apparatus, for displaying, on a display unit, an electronic service manual that includes document information and drawing information that is information for writing and drawings related to a predetermined product that includes an electric circuit or an electronic circuit that employs parts as components, and

for generating additional data based on additional information when a user who browses the electronic service manual displayed on the display unit enters, into the computer, the additional information related to the electronic service manual, comprising:

structure definition acquisition means, for obtaining structure definition information, in which a structure definition related to the additional information entered by the user is described in order to structure the additional information, together with information that designates the drawing correlated with the additional information, and which is stored at a location that is capable of being referenced; and

structured data generation means for, based on the structure definition information obtained at the structure definition acquisition step, employing the additional information to generate structured data that conforms to the structure definition.

21. (Amended) The additional data generation apparatus according to claim 20,

wherein, when a comment by the user is entered into the computer the additional information, the structure definition acquisition means obtains, as the structure definition information, my-notes structure

definition information, in which a structure definition related to the comment is described; and

5           wherein, when display setup change information for a graphics primitive included in a drawing for the electronic service manual is entered into the computer as the additional information, the structure definition acquisition means obtains, as the structure definition information, my-drawings structure definition information, in which a structure definition related to the display  
10       setup change information is described.

22.       (Amended) A recording medium on which recorded is an electronic service manual generation program, for permitting a computer to generate an electronic service  
15       manual that includes document information and drawing information related to a predetermined product that includes an electric circuit, or an electronic circuit, that employs parts as components, and for permitting the computer to execute:

20           an original data acquisition step of obtaining original data serving as contents of the electronic service manual;

          a structure definition acquisition step of obtaining structure definition information, in which a  
25       structure definition for the electronic service manual is



described and which is stored at a location the computer is capable of referencing; and

5 a structured data generation step of, based on the structure definition information obtained at the structure definition acquisition step, employing the original data obtained at the original data acquisition step to generate structured data that is constituent data of the electronic service manual and that conforms to the structure definition,

10 whereby, when, at the original data acquisition step, data that serves as main text for the electronic service manual is obtained as the original data at the structure definition acquisition step, main text structure definition information in which a structure definition related to the main text is described is  
15 obtained as the structure definition information,

whereby, when, at the original data acquisition step, drawing data in which parts used for the predetermined product are illustrated are obtained as the  
20 original data, at the structure definition acquisition step, drawing structure definition information, in which a structure definition related to the drawing is described and which includes a structure definition to structure, as one group, graphics primitive data and  
25 attribute data indicating the graphics primitive data, is

obtained as the structure definition information,

whereby, when, at the original data acquisition step, parts table data in which a list of the parts used for the predetermined product is described are obtained as the original data, at the structure definition acquisition step, parts table structure definition information, in which a structure definition related to the parts table is described, is obtained as the structure definition information, and

whereby, when, at the original data acquisition step, voltage value table data, in which a list of voltage values for the electric circuit or the electronic circuit used in the predetermined product is described, are obtained as the original data, at the structure definition acquisition step, voltage value table structure definition information, in which a structure definition related to the voltage value table is described, is obtained as the structure definition information.

23. (Amended) The recording medium on which recorded is an electronic service manual generation program according to claim 22,

whereby, when, at the original data acquisition step, IC function table data in which a list of functions

of ICs employed for the predetermined product is described are obtained as the original data, at the structure definition acquisition step, IC function table structure definition information, in which a structure definition related to the IC function table is described,  
5 is obtained as the structure definition information.

24. (Amended) The recording medium on which recorded is an electronic service manual generation  
10 program according to claim 22,  
whereby, when document data is obtained as the original data at the original data acquisition step, at the structured data generation step, the structured data, in an XML format, is generated by using the document  
15 data; and

whereby, when drawing data is obtained as the original data at the original data acquisition step, at the structured data generation step, the structured data are generated in an SVG format or an SVGZ format by using  
20 the drawing data.

25. (Amended) The recording medium on which recorded is an electronic service manual generation program according to claim 22 that permits the computer  
25 to execute:

a parts-drawing correlation reference step, when at the original data acquisition step parts table data, in which a list of the parts used for the predetermined product is described, and parts drawing data that  
5 includes drawings related to the parts are obtained as the original data, of comparing individual parts included in the list of the parts with the drawings wherein the individual parts are illustrated, and generating parts-drawing correlation information that includes the  
10 comparison results; and

a parts-drawing correlation addition step, based on the parts-drawings correlation information generated at the parts-drawings correlation reference step, of embedding, in the parts table data, information about the  
15 parts written in the parts table data and the drawings that correspond to the parts.

26. (Amended) The recording medium on which recorded is an electronic service manual generation  
20 program according to claim 22 that permits the computer to execute:

a parts-IC correlation reference step, when at the original data acquisition step parts table data, in which the list of the parts is written, and IC function  
25 table data, in which a list of functions of ICs employed

for the predetermined product is written, are obtained as the original data, of comparing individual parts included in the parts list with the functions of individual ICs in the list of the IC functions and generating parts-IC functions correlation information that includes the comparison results; and

5 a parts-IC correlation addition step, based on the parts-IC functions correlation information generated at the parts-IC correlation reference step, of embedding,  
10 in the parts table data, information about the parts written in the parts table data and about the IC functions that correspond to the parts.

27. (Amended) A recording medium on which recorded  
15 is an additional data generation program, which can be executed by a computer that displays, on a display unit, an electronic service manual that includes document information and drawing information that is information for writing and drawings related to a predetermined  
20 product that includes an electric circuit or an electronic circuit that employs parts as components, which permits the computer to generate additional data based on additional information when a user who browses the electronic service manual displayed on the display  
25 unit enters, into the computer, the additional

information related to the electronic service manual, and which permits the computer to execute:

5 a structure definition acquisition step of obtaining structure definition information, in which a structure definition related to the additional information entered by the user is described in order to structure the additional information, together with information that designates the drawing correlated with the additional information, and which is stored at a  
10 location the computer is capable of referencing; and

a structured data generation step of, based on the structure definition information obtained at the structure definition acquisition step, employing the additional information to generate structured data that  
15 conforms to the structure definition.

28. (Amended) The recording medium on which recorded is an additional data generation program according to claim 27,

20 whereby, when a comment by the user is entered into the computer the additional information, at the structure definition acquisition step, my-notes structure definition information, in which a structure definition related to the comment is described, is obtained as the  
25 structure definition information; and

whereby, when display setup change information for a graphics primitive included in a drawing for the electronic service manual is entered into the computer as the additional information, at the structure definition acquisition step, my-drawings structure definition information, in which a structure definition related to the display setup change information is described, is obtained as the structure definition information.